Mid America Steel Drum, Oak Creek, Wisconsin

Detailed Narrative Process Description

Facility receives RCRA empty steel drums – Typically 55 gallon in size. Drums are inspected upon receipt and throughout reconditioning process to determine reuse. All parts (rings/covers/bungs etc.) are handled in same fashion as drums.

Tight head and open head steel drums are received at the receiving docks. The drums are unloaded onto covered docks where they are sorted for processing. Open head drums are placed on a drag chain and are taken to the burner where they are inverted onto the chain. The drum then moves through the burner where any product residue and paint are burned off at approximately 1200 degrees Fahrenheit.

Tight head drums are removed from the incoming trailer and are placed on a drag chain the takes them to a cutting room where the head is removed by a large opener similar in style to a can opener. If the drum is to be converted into an open head drum, the sharp edge of the shell is rounded over to create a new seal for a drum cover. The cut lid is replaced onto the top of the drum and the drum continues to the furnace. The drum then follows the burner process of an open head drum.

After burning in the furnace, the drum moves to the steel shot blaster where the inside and outside are blasted to remove any scale, rust or debris. The drum is then re-formed by an internal press and new rolling hoops are pressed into the exterior.

Following re-forming, the drum is sealed and tested for leaks. The drum has a compound inserted into the interior lower chime to ensure that there are no leaks or dust coming back into the drum. The drum is then lined internally with paint and dried in an oven. The next step is exterior paint and drying in an oven.

Following final paint, the drum is conveyed by drag chain to the assembly area where appropriate closure parts are installed. The drum then moves to the shipping dock where it is loaded on a trailer for transport to the customer.

All drums/parts deemed non-reusable are scrapped.

Detail: (numbers correspond to the process diagram in Appendix A)

<u>Process Flow – Drums</u>

1. Receiving Docks – Sorting process of drums for production needs at covered docks.
2. Drum Furnace – Drums are sent upside down onto conveyor drag chain – Lower Chamber 1200 degrees (average)/Thermal Oxidizer 1700 degrees
3. Drum Blaster – 170 steel media shot – Unmanned
4. Auto Expander – Expands out of round drums - Unmanned
5. Forming Area – Expansion of drums and quality oversight/reuse overview
6. Chimer - Straightens chime of drum – Unmanned

7. Drum Tester – Drum leak check – Unmanned
8. Resin Machine – Applies small amount of resin to inner chime of drum – Unmanned
9. Interior Shell Lining Booth – Applies lining/coating
10. Lining Oven – Cures lining
11. Quality Inspection/Paint line load – Quality measure
12. Exterior Shell Painter – Paints drum to required color
13. Exterior Paint Oven – Paint drying process
14. Shipping/Receiving – Sticker drums to spec as needed/Roll drums into trailer/Stack drums into trailers per customer requirements – floor height/2 high/3 high

Parts Flow – Covers/Rings/Bungs

Parts follow same process as drums up to Pull Off platform.
1a. Cover Blaster – Blasts covers with 170 steel media shot
2a. Cover Liner Booth – Applies lining to interior side of covers
3a. Cover Paint Booth – Applies required paint color to exterior side of cover
4a. Cover Glue Station – Applies gaskets to covers as required by spec
5a. Ring/Bung Blaster – Blasts rings with 170 steel media shot
6a. Ring Dip Tank – Coats rings/Quality overview